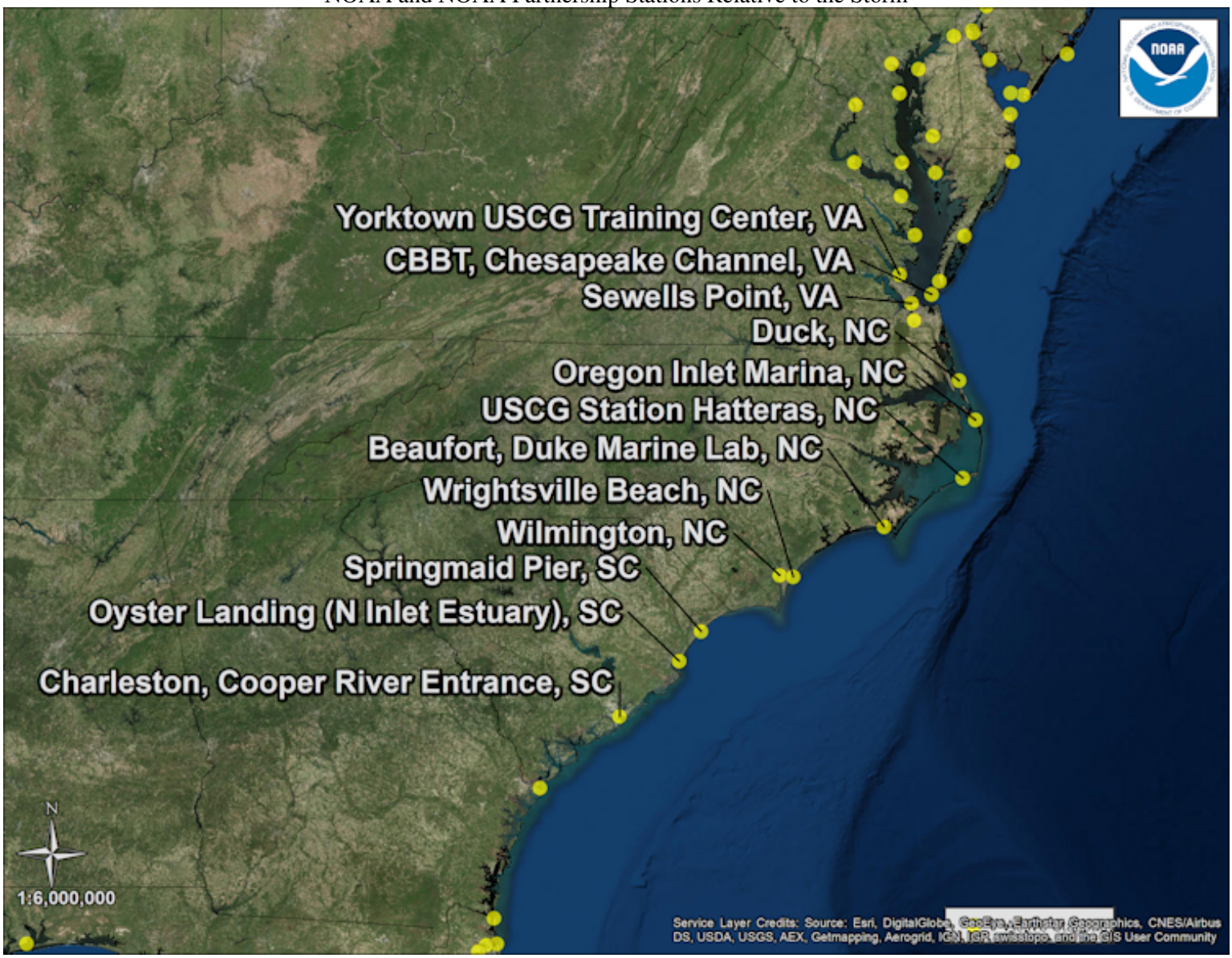
Tropical Depression Florence QuickLook
Posted: 12:00 EDT 09/16/2018

NOAA and NOAA Partnership Stations Relative to the Storm



Storm Analysis

Final QuickLook for Florence

As of 09/16/2018 12:00 EDT, water levels at many locations from South Carolina to southern Cheapeake Bay remain elevated. Many of these locations are feeling impacts from extremely heavy rainfall from Florence. Water levels in tidal estuary environments that are influenced by river flow will be slow to return to pre-storm levels. Significant

water levels continue to be measured at Wilmington, NC along the Cape Fear river, especially at times of high tide.

No further QuickLooks will be posted for this storm unless oceanographic conditions warrant and/or the National Hurricane Center (NHC) issues a new tropical storm or hurricane warning for the U.S.

Water levels in bays and associated waterways may include impacts from hydrological forces, including rainfall runoff. For additional hydrological information see the NWS Advanced Hydrologic Prediction Services or your local National Weather Service Forecast Office.

Water Level and Meteorological plots available below are updated automatically. A line denoting Mean Higher High Water (MHHW) is displayed to provide an approximate indication of when flooding inundation may occur.

For additional real-time and historical inundation information for select stations affected by this storm, please visit Coastal Inundation Dashboard. For additional data, please see the Center for Operational Oceanographic Products & Services website.

For more information or archived products and reports, please visit the Storm QuickLook Homepage.

Analyst: PFF

Final National Hurricane Center Advisory Information (Public Advisories from the Weather Prediction Center will provide updates as long as the system remains a flood threat):

Tropical Depression Florence Advisory Number 69
NWS Weather Prediction Center College Park MD AL062018
1100 AM EDT Sun Sep 16 2018

...FLORENCE CONTINUES TO PRODUCE WIDESPREAD HEAVY RAINS OVER MUCH OF NORTH CAROLINA AND NORTHERN SOUTH CAROLINA. FLASH FLOODING AND MAJOR RIVER FLOODING WILL CONTINUE OVER A SIGNIFICANT PORTION OF THE CAROLINAS...

SUMMARY OF 1100 AM EDT...1500 UTC...INFORMATION

LOCATION...34.0N 81.8W
ABOUT 40 MI...65 KM W OF COLUMBIA SOUTH CAROLINA
ABOUT 215 MI...345 KM SW OF RALEIGH NORTH CAROLINA
MAXIMUM SUSTAINED WINDS...35 MPH...55 KM/H
PRESENT MOVEMENT...NNW OR 330 DEGREES AT 10 MPH...17 KM/H
MINIMUM CENTRAL PRESSURE...1002 MB...29.59 INCHES

WATCHES AND WARNINGS

SUMMARY OF WATCHES AND WARNINGS IN EFFECT:

There are no coastal watches or warnings in effect.

Flash flood warnings are currently in effect across a large portion of southeastern North Carolina and portions of far northeastern South Carolina.

Flash flood watches are in effect across much of North Carolina...northern South Carolina and portions of Southwest Virginia.

DISCUSSION AND OUTLOOK

At 1100 AM EDT (1500 UTC), the center of Tropical Depression Florence was located near latitude 34.0 North, longitude 81.8 West. The depression is moving toward the north-northwest near 10 mph (17 km/h) and this motion is expected to continue through the day on Sunday.

Maximum sustained winds are near 35 mph (55 km/h) with higher gusts. Some weakening is forecast during the next 48 hours.

The estimated minimum central pressure is 1002 mb (29.59 inches).

HAZARDS AFFECTING LAND

RAINFALL: Florence is expected to produce heavy and excessive rainfall in the following areas...

Southeastern...Central and western North Carolina...far northern South Carolina into far southwest Virginia...

Southeastern North Carolina and far northeast South Carolina:

Additional 3 to 6 inches of rain...with isolated maximum of 8 inches possible...with storm total accumulations of 30 to 40 inches likely. These rainfall amounts will produce catastrophic flash flooding and prolonged significant river flooding.

Central and Western North Carolina...far northern South Carolina and far southwest Virginia:

Additional 5 to 10 inches of rain, with storm total accumulations of 15 to 20 inches likely. These rainfall amounts will produce flash flooding and an elevated risk for landslides in western North Carolina and far southwest Virginia.

West-central Virginia:

2 to 4 inches, isolated 6 inches. This rainfall will result in flash flooding and potentially lead to some river flooding.

For more information on rainfall totals please see the Storm Summary available at
www.wpc.ncep.noaa.gov/discussions/nfdscc1.html

TORNADOES: A few tornadoes remain possible across southeast North Carolina and northeastern South Carolina today and tonight.

NEXT ADVISORY

Next complete advisory at 500 PM EDT.

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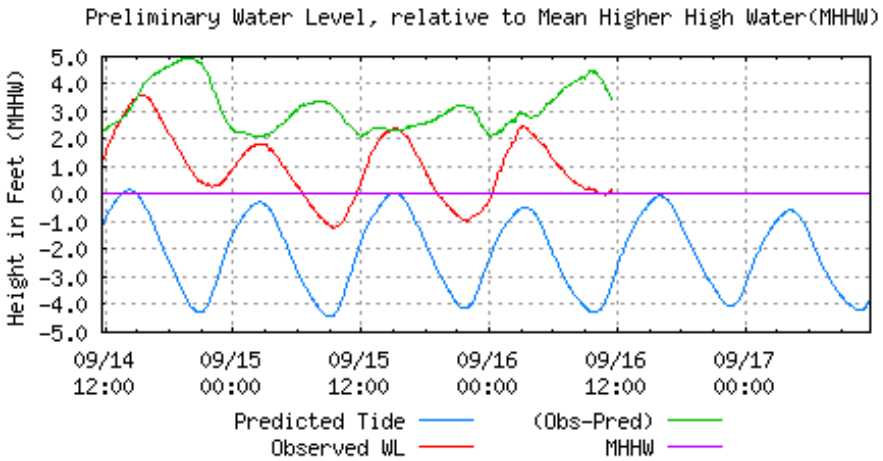
Forecaster Oravec

For the purpose of timely release, data contained within this QuickLook have undergone a "limited" NOS Quality Assurance/Control; however, the data have not yet undergone final verification. All data subject to NOS verification.

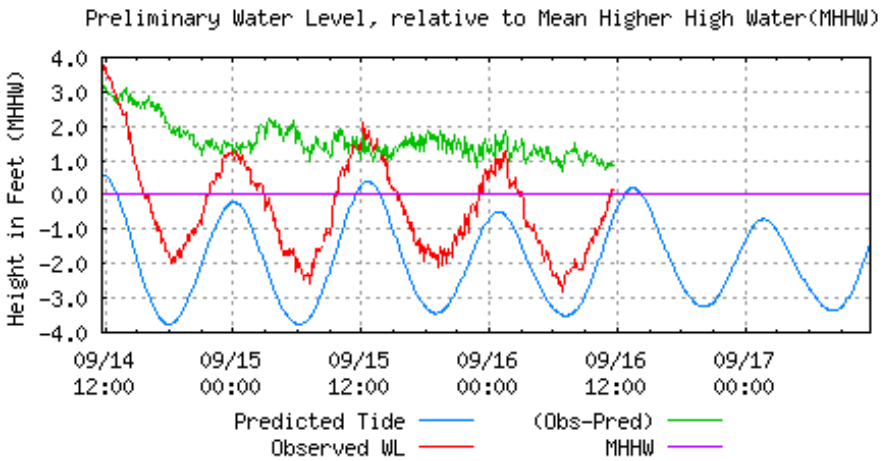
Jump to: Wilmington - Water Level, Wrightsville Beach - Water Level, Springmaid Pier - Water Level, Oyster Landing (N Inlet Estuary) - Water Level, Charleston, Cooper River Entrance - Water Level, Beaufort, Duke Marine Lab - Water Level, USCG Station Hatteras - Water Level, Oregon Inlet Marina - Water Level, Duck - Water Level, CBBT, Chesapeake Channel - Water Level, Sewells Point - Water Level, Yorktown USCG Training Center - Water Level

NOAA/NOS/CO-OPS 8658120 Wilmington, NC



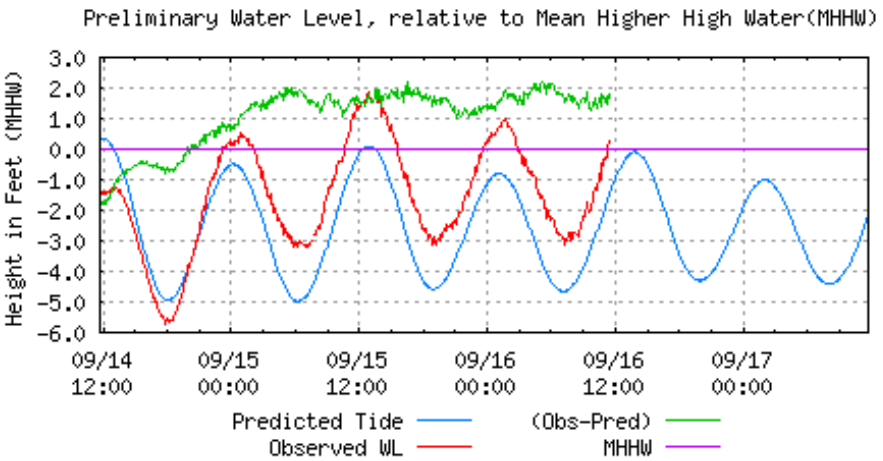
Last Observed Sample: 09/16/2018 11:30 (EDT). Data relative to MHHW
Observed: 0.16 ft. Predicted: -3.26 ft. Residual: 3.42 ft.
Historical Maximum Water Level: Oct 8 2016, 3.48 ft.
Next High Tide: 09/16/2018 16:00 (EDT), -0.06 ft.

NOAA/NOS/CO-OPS 8658163 Wrightsville Beach, NC



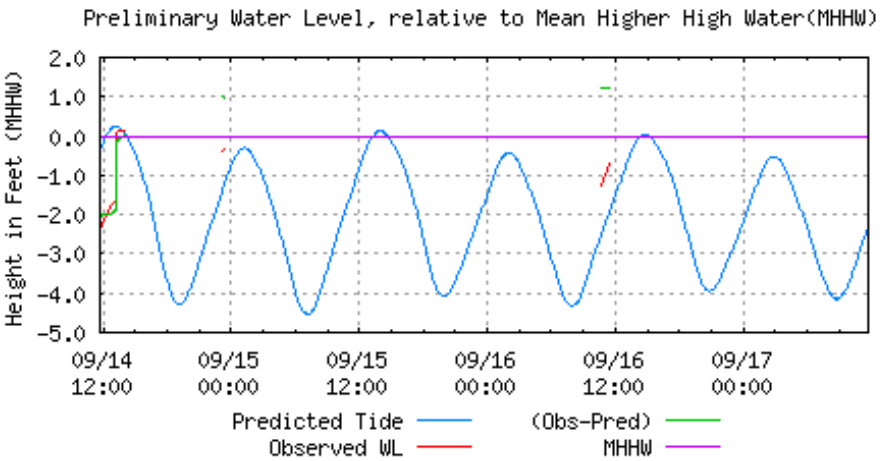
Last Observed Sample: 09/16/2018 11:42 (EDT). Data relative to MHHW
Observed: 0.19 ft. Predicted: -0.61 ft. Residual: 0.80 ft.
Historical Maximum Water Level: Oct 4 2015, 2.97 ft.
Next High Tide: 09/16/2018 13:28 (EDT), 0.20 ft.

NOAA/NOS/CO-OPS 8661070 Springmaid Pier, SC



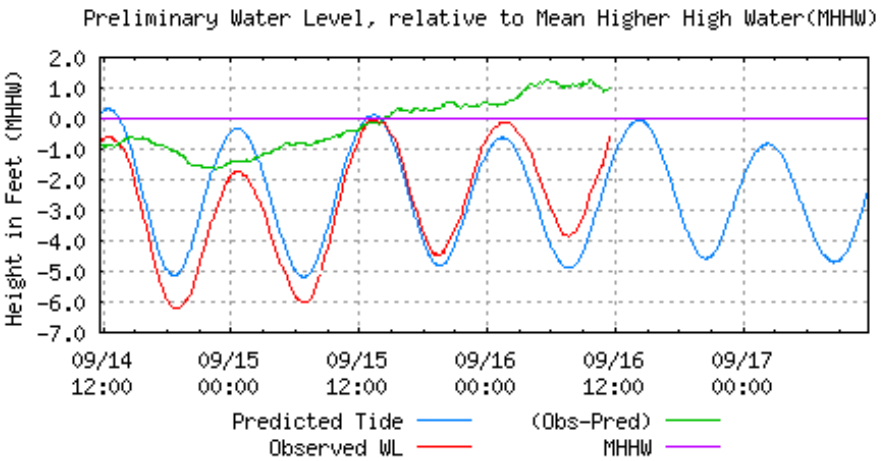
Last Observed Sample: 09/16/2018 11:30 (EDT). Data relative to MHHW
Observed: 0.18 ft. Predicted: -1.46 ft. Residual: 1.64 ft.
Historical Maximum Water Level: Sep 21 1989, 8.77 ft.
Next High Tide: 09/16/2018 13:48 (EDT), -0.10 ft.

NOAA/NOS/CO-OPS 8662245 Oyster Landing (N Inlet Estuary), SC



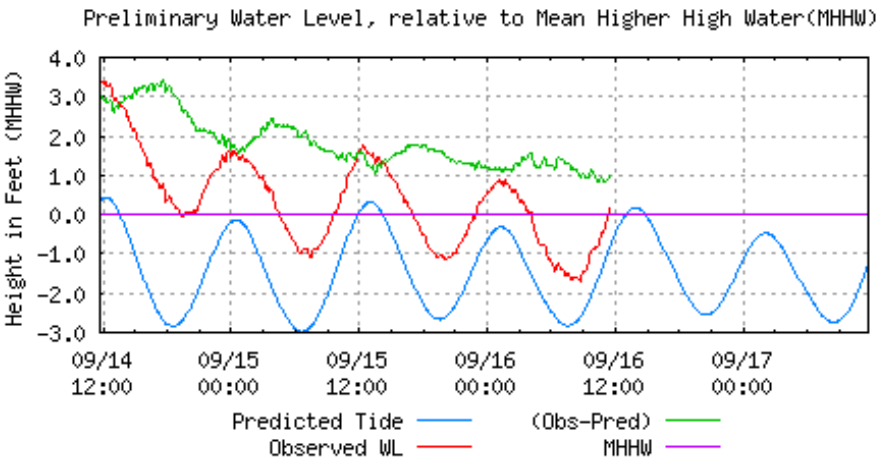
Last Observed Sample: 09/16/2018 11:30 (EDT). Data relative to MHHW
Observed: -0.68 ft. Predicted: -1.90 ft. Residual: 1.22 ft.
Historical Maximum Water Level: Oct 8 2016, 4.64 ft.
Next High Tide: 09/16/2018 14:46 (EDT), 0.04 ft.

NOAA/NOS/CO-OPS 8665530 Charleston, Cooper River Entrance, SC



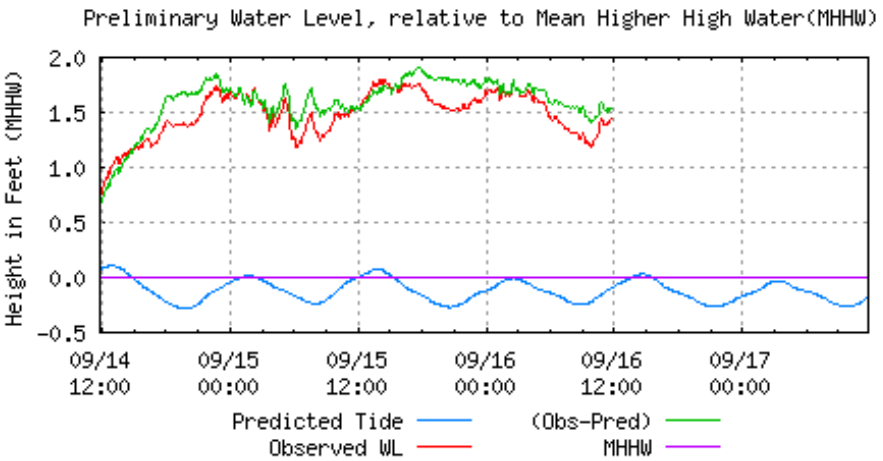
Last Observed Sample: 09/16/2018 11:30 (EDT). Data relative to MHHW
Observed: -0.62 ft. Predicted: -1.63 ft. Residual: 1.01 ft.
Historical Maximum Water Level: Sep 21 1989, 6.76 ft.
Next High Tide: 09/16/2018 14:14 (EDT), -0.06 ft.

NOAA/NOS/CO-OPS 8656483 Beaufort, Duke Marine Lab, NC



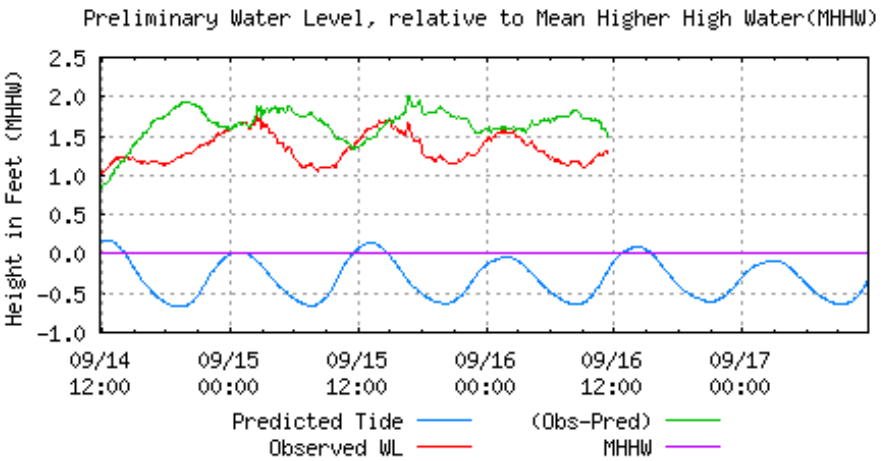
Last Observed Sample: 09/16/2018 11:30 (EDT). Data relative to MHHW
Observed: 0.18 ft. Predicted: -0.83 ft. Residual: 1.01 ft.
Historical Maximum Water Level: Sep 19 1955, 3.39 ft.
Next High Tide: 09/16/2018 13:53 (EDT), 0.18 ft.

NOAA/NOS/CO-OPS 8654467 USCG Station Hatteras, NC



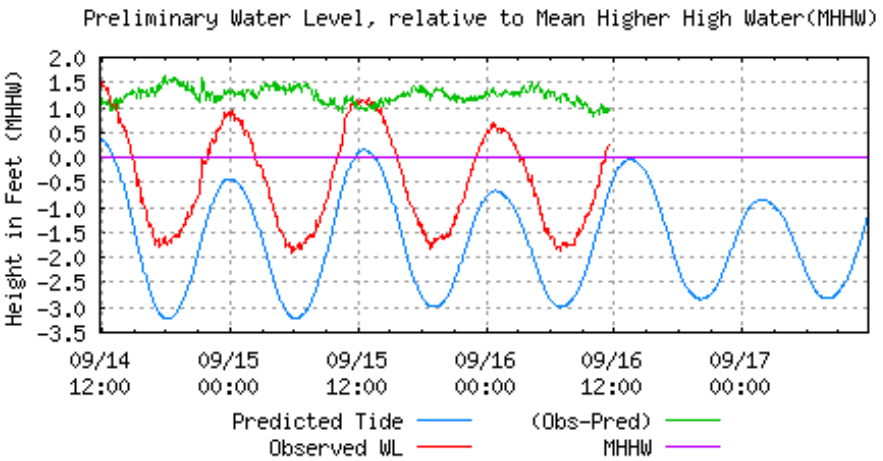
Last Observed Sample: 09/16/2018 11:42 (EDT). Data relative to MHHW
Observed: 1.44 ft. Predicted: -0.09 ft. Residual: 1.53 ft.
Historical Maximum Water Level: Oct 9 2016, 5.76 ft.
Next High Tide: 09/16/2018 14:41 (EDT), 0.03 ft.

NOAA/NOS/CO-OPS 8652587 Oregon Inlet Marina, NC



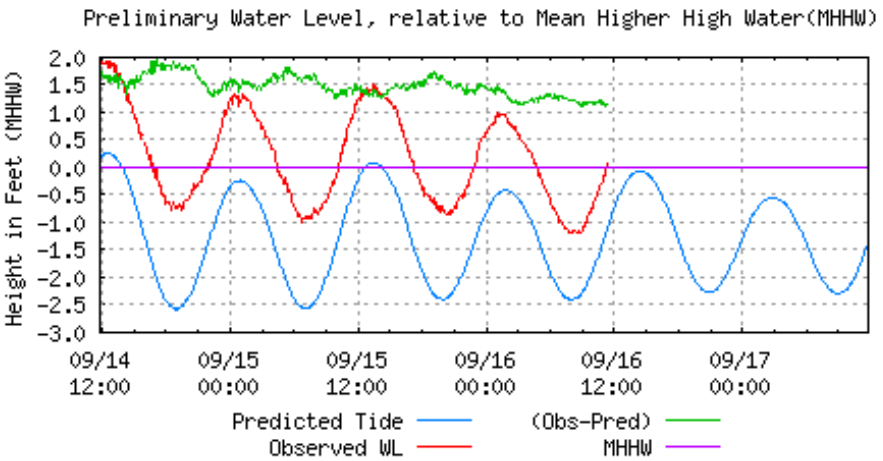
Last Observed Sample: 09/16/2018 11:24 (EDT). Data relative to MHHW
Observed: 1.27 ft. Predicted: -0.21 ft. Residual: 1.48 ft.
Historical Maximum Water Level: Aug 28 2011, 6.31 ft.
Next High Tide: 09/16/2018 14:10 (EDT), 0.08 ft.

NOAA/NOS/CO-OPS 8651370 Duck, NC



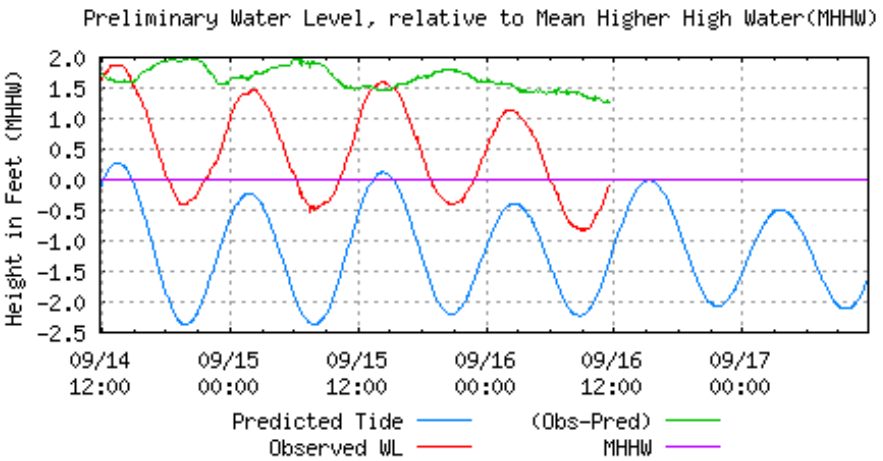
Last Observed Sample: 09/16/2018 11:30 (EDT). Data relative to MHHW
Observed: 0.25 ft. Predicted: -0.69 ft. Residual: 0.94 ft.
Historical Maximum Water Level: Sep 18 2003, 4.13 ft.
Next High Tide: 09/16/2018 13:29 (EDT), -0.03 ft.

NOAA/NOS/CO-OPS 8638901 CBBT, Chesapeake Channel, VA



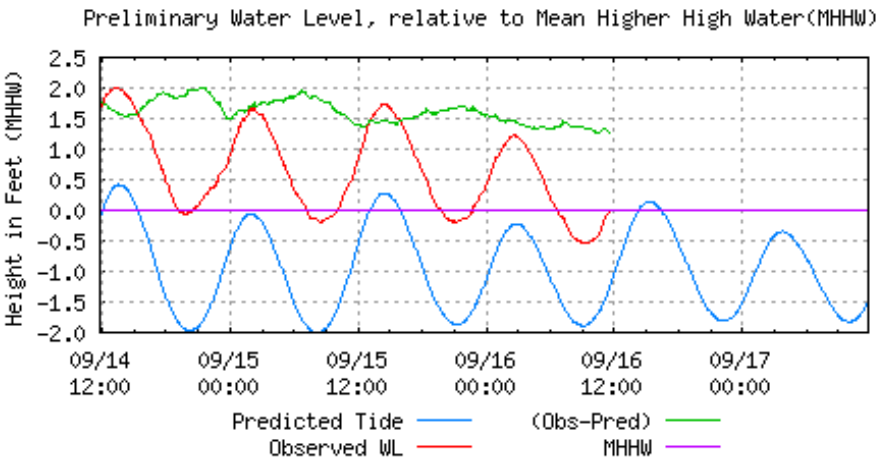
Last Observed Sample: 09/16/2018 11:24 (EDT). Data relative to MHHW
Observed: 0.08 ft. Predicted: -1.08 ft. Residual: 1.16 ft.
Historical Maximum Water Level: n/a
Next High Tide: 09/16/2018 14:23 (EDT), -0.07 ft.

NOAA/NOS/CO-OPS 8638610 Sewells Point, VA



Last Observed Sample: 09/16/2018 11:30 (EDT). Data relative to MHHW
Observed: -0.10 ft. Predicted: -1.37 ft. Residual: 1.27 ft.
Historical Maximum Water Level: Aug 23 1933, 5.26 ft.
Next High Tide: 09/16/2018 15:16 (EDT), -0.01 ft.

NOAA/NOS/CO-OPS 8637689 Yorktown USCG Training Center, VA



Last Observed Sample: 09/16/2018 11:30 (EDT). Data relative to MHHW
Observed: -0.02 ft. Predicted: -1.30 ft. Residual: 1.28 ft.
Historical Maximum Water Level: Nov 13 2009, 4.27 ft.
Next High Tide: 09/16/2018 15:18 (EDT), 0.14 ft.

Latest Water Level Observations on MHHW

Station ID	Station Name	Date/Time	Observed Water Level	Predicted Tide	Residual Water Level	24 Hour Maximum Storm Tide
8658120	Wilmington, NC	09/16/2018 11:30 (EDT)	0.16 ft	-3.26 ft	3.42 ft	2.47 ft
8658163	Wrightsville Beach, NC	09/16/2018 11:42 (EDT)	0.19 ft	-0.61 ft	0.80 ft	2.09 ft
8661070	Springmaid Pier, SC	09/16/2018 11:30 (EDT)	0.18 ft	-1.46 ft	1.64 ft	1.88 ft
8662245	Oyster Landing (N Inlet Estuary), SC	09/16/2018 11:30 (EDT)	-0.68 ft	-1.90 ft	1.22 ft	0.13 ft
8665530	Charleston, Cooper River Entrance, SC	09/16/2018 11:30 (EDT)	-0.62 ft	-1.63 ft	1.01 ft	-0.02 ft
8656483	Beaufort, Duke Marine Lab, NC	09/16/2018 11:30 (EDT)	0.18 ft	-0.83 ft	1.01 ft	1.77 ft
8654467	USCG Station Hatteras, NC	09/16/2018 11:42 (EDT)	1.44 ft	-0.09 ft	1.53 ft	1.80 ft
8652587	Oregon Inlet Marina, NC	09/16/2018 11:24 (EDT)	1.27 ft	-0.21 ft	1.48 ft	1.70 ft
8651370	Duck, NC	09/16/2018 11:30 (EDT)	0.25 ft	-0.69 ft	0.94 ft	1.20 ft
8638901	CBBT, Chesapeake Channel, VA	09/16/2018 11:24 (EDT)	0.08 ft	-1.08 ft	1.16 ft	1.51 ft
8638610	Sewells Point, VA	09/16/2018 11:30 (EDT)	-0.10 ft	-1.37 ft	1.27 ft	1.60 ft
8637689	Yorktown USCG Training Center, VA	09/16/2018 11:30 (EDT)	-0.02 ft	-1.30 ft	1.28 ft	1.74 ft

Center for Operational Oceanographic Products & Services (CO-OPS) | National Ocean Service (NOS)
National Oceanic and Atmospheric Administration | U.S. Department of Commerce